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EXAMINER
CUNNINGHAM, T

ART UNIT PAPER NUMBER

2504

DATE MAILED:

06/29/95

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This is a communication from the examiner in charge of your application.
COMMISSIONER OF PATENTS AND TRADEMARKS

☒ This application has been examined ☐ Responsive to communication filed on _____ ☐ This action is made final.

A shortened statutory period for response to this action is set to expire three month(s), _____ days from the date of this letter.
Failure to respond within the period for response will cause the application to become abandoned. 35 U.S.C. 133

Part I THE FOLLOWING ATTACHMENT(S) ARE PART OF THIS ACTION:

- | | |
|---|--|
| 1. <input checked="" type="checkbox"/> Notice of References Cited by Examiner, PTO-892. | 2. <input checked="" type="checkbox"/> Notice of Draftsman's Patent Drawing Review, PTO-948. |
| 3. <input type="checkbox"/> Notice of Art Cited by Applicant, PTO-1449. | 4. <input type="checkbox"/> Notice of Informal Patent Application, PTO-152. |
| 5. <input type="checkbox"/> Information on How to Effect Drawing Changes, PTO-1474. | 6. <input type="checkbox"/> _____ |

Part II SUMMARY OF ACTION

1. ☒ Claims 1-6 are pending in the application.
Of the above, claims _____ are withdrawn from consideration.
2. ☐ Claims _____ have been cancelled.
3. ☐ Claims _____ are allowed.
4. ☒ Claims 1-6 are rejected.
5. ☐ Claims _____ are objected to.
6. ☐ Claims _____ are subject to restriction or election requirement.
7. ☒ This application has been filed with informal drawings under 37 C.F.R. 1.85 which are acceptable for examination purposes.
8. ☐ Formal drawings are required in response to this Office action.
9. ☐ The corrected or substitute drawings have been received on _____. Under 37 C.F.R. 1.84 these drawings are ☐ acceptable; ☐ not acceptable (see explanation or Notice of Draftsman's Patent Drawing Review, PTO-948).
10. ☐ The proposed additional or substitute sheet(s) of drawings, filed on _____, has (have) been ☐ approved by the examiner; ☐ disapproved by the examiner (see explanation).
11. ☐ The proposed drawing correction, filed _____, has been ☐ approved; ☐ disapproved (see explanation).
12. ☒ Acknowledgement is made of the claim for priority under 35 U.S.C. 119. The certified copy has ☒ been received ☐ not been received
☐ been filed in parent application, serial no. _____; filed on _____.
13. ☐ Since this application appears to be in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11; 453 O.G. 213.
14. ☐ Other

EXAMINER'S ACTION

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Figure 1 should be designated by a legend such as "Prior Art" in order to clarify what is applicant's invention (see M.P.E.P. § 608.02(g)).

The specification is objected to under 37 C.F.R. § 1.75(d) which provides the requirement that every term or phrase used in the claims must find clear support or antecedent basis in the specification. There is no clear support or antecedent basis in the specification for the language of claim 6 reciting an "AND circuit". Figure 3 clearly shows only a NAND gate, not an "AND" gate. Appropriate correction is required.

The following is a quotation of the first paragraph of 35 U.S.C. § 112:

"The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention."

The specification is objected to under 35 U.S.C. § 112, first paragraph, as failing to adequately teach how to make and/or use the invention, i.e., failing to provide an enabling disclosure.

The specification fails to provide proper enablement for the circuit recited in claims 4-6. Claims 4-6 are seen to lack positive recitation of the "voltage pump circuit"; the "oscillator", and the "substrate voltage detector". This is due to the functional language of "by means of" in line 3. Without positive recitation of these elements, it is not understood how the recited circuit can be considered a "substrate bias generator" based on the present specification.

Claims 4-6 are rejected under 35 U.S.C. § 112, first paragraph, for the reasons set forth in the objection to the specification. It is noted that the above rejection can be overcome if claim 4 is amended by changing "by means of" in line 3 to --said substrate bias generator having-- and by inserting --further-- following "generator" in line 7.

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Claims 1-6 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, line 6, there is no antecedent for "said input level".

Claims 2 and 3 are rejected for the reasons discussed above with claim 1.

In claim 3, line 3, it is not understood what is meant by a "reverse signal". It appears perhaps that this should recite --inverted signal--. In line 6, there is no antecedent for "said output signal of said NOR circuit".

In claim 4, lines 3-7, it is not understood how the "substrate bias generator" can provide the recited operation "by means of" the elements recited therein. This language would make it appear that the "voltage pump circuit", the "oscillator" and the "substrate level detector" are separate from the "substrate bias generator", however, the specification clearly discloses that they are part thereof. Lines 8-12 recite elements which are stated as being part of the "substrate bias generator", however, it is not understood how the recited elements, by themselves, can comprise a "substrate bias generator". Therefore, claim 4 is deemed to be incomplete as discussed in M.P.E.P. § 706.03(f). In lines 12-15, there is no support in the specification for the language recited therein. The specification makes it clear that the "PMOS transistor" is part of the already recited "substrate voltage level detector" in line 5.

Claims 5 and 6 are rejected for the reasons discussed above with claim 4.

Claim 1 is objected to for the informalities listed below.

In claim 1, line 3, for clarity --further-- should be inserted following "generator".

Appropriate corrections for the above discussed objections are required.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. §102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless —

(e) the invention was described in a patent granted on an application for patent by

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another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

Claims 1 and 4-6 rejected under 35 U.S.C. §102(e) as being anticipated by Sugibayashi et al.

With respect to claim 1, Sugibayashi et al. disclose, in Figs. 4, 6 and 9, a circuit comprising: "a voltage pump circuit (13k of Fig. 9)"; "an oscillator (13j of Fig. 9)"; "a substrate voltage detector (13g of Fig. 6)"; and "a controller (rest of Fig. 6)" responsive to "a chip enable signal (Vref) and "a self refresh mod enable signal (PONA)", all connected and operating similarly as recited by Applicant.

With respect to claims 4-6, Sugibayashi et al. disclose, in Figs. 4 and 6, a circuit comprising: "a first logic circuit (13a of Fig. 4)"; "a second logic circuit (NR1 of Fig. 6)"; and "a PMOS transistor (Qp2)", all connected and operating similarly as recited by Applicant.

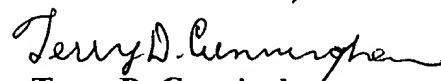
Claims 2 and 3 would be allowable if rewritten to overcome the rejection under 35 U.S.C. § 112 and to include all of the limitations of the base claim and any intervening claims.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Terry Cunningham at telephone number (703) 308-4872.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-0956.

TC
June 26, 1995


Terry D. Cunningham
Primary Examiner
Group Art Unit 2504